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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/004,131	10/30/2001	Naoto Matsunami	16869P-036100US	8042

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EXAMINER

SORRELL, ERON J

ART UNIT PAPER NUMBER

2182

DATE MAILED: 09/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/004,131

Applicant(s)

MATSUNAMI ET AL.

Examiner

Eron J. Sorrell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 August 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 6,8 and 11-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6,8 and 11-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)     | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

RD

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/11/05 has been entered.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 6,8, and 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schubert et al. (U.S. Patent No. 6,460,113 hereinafter "Schubert") in view of Chilton (U.S.

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Patent No. 6,732,117) and further in view of Kern et al. (U.S.

Pub. No. 2001/0052073 hereinafter "Kern").

4. Referring to claims 6 and 14, Shubert teaches a storage system comprising:

- a set of plural disk drive units (see item labeled 56 in figure 2);

- a plurality of controllers coupled to at least one computer via a network (see items labeled 38 and 40 in figure 2)

- a connection unit connected between the set of plural disk drive units and the plurality of controllers, the connection unit configured such that any of the controllers can communicate with any of the disk drive units (see item labeled 48 in figure 2);

wherein each of the plurality of controllers comprises:

- a first circuit in communication with at least one computer (see interface to LAN in figure 2); and

- a second circuit in data communication with the disk drive units via a connection unit (see interface to FC switch in figure 2);

wherein one of the plurality of disk controllers is a file server comprising a first circuit accepting access from a

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computer through a file I/O interface (see item labeled 38 in figure 2 and paragraph bridging columns 3 and 4).

Schubert fails to teach the limitations of one of the plurality of controllers is a disk controller comprising a first circuit accepting access from a computer through a block I/O interface and fails to teach some of the plural disk drive units hold identification information identifying at least one of the plurality of controllers, and each of the plurality of controllers determines which of the plural disk drive units is accessible based on the identification information held in each of the plural disk drive units.

Chilton teaches, in an analogous system, one of the plurality of controllers is a disk controller comprising a first circuit accepting access from a computer through a block I/O interface (see lines 26-49 of column 19).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of Schubert with the above teachings of Chilton. One of ordinary skill in the art would have been motivated to make such modification to reduce the amount of traffic between the client and the storage sub-system as suggested by Chilton (see abstract).

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Kern teaches, in another analogous system, some of the plural disk drive units hold identification information identifying at least one of the plurality of controllers, and each of the plurality of controllers determines which of the plural disk drive units is accessible based on the identification information held in each of the plural disk drive units (see paragraph 12 bridging pages 1 and 2).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the combination of Schubert and Chilton with the above teachings of Kern. One of ordinary skill in the art would have been motivated to make such modification to provide security to sensitive data as suggested by Kern (see paragraph 12 bridging pages 1 and 2).

5. Referring to claim 8, Schubert teaches a second circuit of each of the plurality of controllers is a Fibre Channel controller (see interface from the controller 38 to FC switch in figure 2).

6. Referring to claims 11 and 12, Kern teaches the plural disk drive units holds said identification information in a specific storage area in the disk drive unit and the controllers searches

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the specific area to determine if the disk drive unit is accessible (see paragraph 12 bridging pages 1 and 2).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention modify the combination of Schubert and Chilton with the above teachings of Kern. One of ordinary skill in the art would have been motivated to make such modification in order to easily check access permissions as suggested by Kern (see paragraph bridging pages 1 and 2).

7. Referring to claim 13, Chilton teaches a disk pool management unit (see item 74 in figure 2).

It would have been obvious to one of ordinary skill in the art modify the system of Schubert with the above teachings of Chilton. One of ordinary skill in the art would have been motivated to make such modification to provide a dedicated controller to the plural disk units to coordinate multiple data transfers.

8. Referring to claim 15, Schubert teaches making determinations during system initializations (see lines 41-46 of column 4).

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***Response to Arguments***

9. Applicant's arguments with respect to claim 6 has been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eron J. Sorrell whose telephone number is 571 272-4160. The examiner can normally be reached on Monday-Friday 9:00AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on 571-272-4083. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EJS

September 22, 2005



**KIM HUYNH  
PRIMARY EXAMINER**

9/22/05